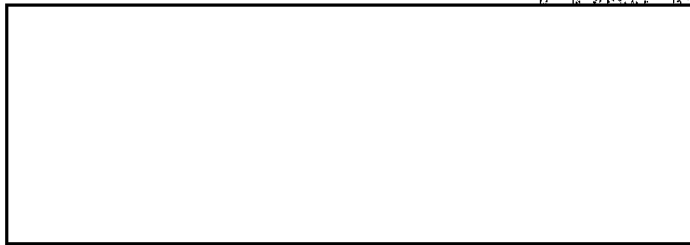


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8 April 1965

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Please Reference:  
A51-65-3218

U. S. Government



ales Order 1-10025-1

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Gentlemen:

We are pleased to provide the eighth in a series of monthly Progress Reports covering the effort expended on subject contract during the period March 2, 1965 to April 1, 1965.

### Clean Room Erection

All controls for the clean room have been installed and completed, as of April 2, 1965. The clean rooms were finally cleaned in preparation for particle counting after the control systems had been running for approximately one week-and-a-half. A particle count was conducted on April 1, 1965, and revealed that leaks exist in the entry ducts into the various sections of the installations. Adjustments of the temperature and humidity controls are also necessary.

The sink type floor drains were received, located and installed.

25X1

Quality Control inspection of the installation in accordance with the contract statement of work was completed. Copies of the first report were submitted to the [redacted] for action on March 10, 1965, and the letter requested a rescheduling of the completion date. This was necessary since the revised date of March 3, 1965 (reported in the seventh monthly letter) had already passed.

All remaining inspection reports were submitted to the [redacted] for action on March 31, 1965. In the time between the two letters to the [redacted], external plywood panels were fitted to the walls of the clean room to assist in light sealing, and the majority of inspection queries concerning the floor support section satisfied.

25X1  
25X1

### Research Program

1. Assignment [redacted] During this reporting period of the contract, Kodak High-Definition aerial film, Type 4404 (formerly S.O.-132) was tested in the continuance of the elevated processing temperature studies. The leading

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particulars of this film are as follows: -

Base: 2.5 mils Ester (Polyester)  
 Emulsion Thickness: 0.24 mils  
 Gel backing thickness: 0.27 mils  
 Sensitivity: Panchromatic; with extended red range.  
 R.M.S. Granularity: Kodak Developer D-19.023 ( $D_{Net} = 1.0$ )  
 Resolving power: 475 lines/mm at T.O.C. 1000:1 (D-19)  
                   200 lines/mm at T.O.C. 1.6:1 (D-19)  
 Exposure index: Daylight 20  
 (Based on normal development of 8 minutes at 68°F in D-19).

The instrumentation used for these tests is that reported in the Interim Progress  
 report under Assignment

The results of the tests were as follows:

1. The same developing time-temperature combination to produce a near-constant gamma which was used on film type 4400 was employed as a starting point on 4404. The difference in emulsions was such that a slight adjustment had to be made from the 88°F level to the 118°F level. The processing time was decreased proportionately to hold the gamma to  $\pm .10$ , this being the tightest tolerance that could be held with the present processing equipment. The following chart shows this time-temperature combination and its relationship to fog, relative speed, and resolution.

TIME - TEMPERATURE CHART

Film Type - 4404

Temp. °F.	Time	Gamma + .10	Base + Fog	Relative Speed	Resolution Lines/mm
68	8 mins.	2.13	.07	54.9	89
78	2 mins. 24 sec.	2.17	.07	47.8	89
88	1 min. 10 sec.	2.21	.07	45.6	89
98	30 sec.	2.22	.07	47.8	89
108	14 sec.	2.16	.07	45.6	89
118	12 sec.	2.11	.07	50.0	89

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